L11: Entry 5 of 12 File: USPT Dec 17, 1996

DOCUMENT-IDENTIFIER: US 5585056 A
TITLE: Plasticizers for fibers used to form surgical devices

BSPR:
Absorbable surgical devices have been made from fibers of synthetic polymers such as polymer made from glycolide, lactide or p-dioxanone. With respect to polyglycolic acid sutures, U.S. Pat. No. 3,297,033 states at column 3, line 45 that: "In general, plasticizers tend to interfere with crystallinity, orientation, etc., and weaken fibers, but are useful for sponges and films." U.S. Pat. No. 3,792,010 describes plasticized polyester sutures prepared by reacting glycolide and lactide in the presence of a plasticizer such as bis-2-methoxyethyl phthalate or acetoxytriethyl citrate. U.S. Pat. No. 3,636,956 states at column 7, line 9 that any of a variety of plasticizers such as glyceryl triacetate, ethyl benzoate and diethyl phthalate can be used with polylactide and that preferred plasticizers for glycolide/lactide copolymers are dibutylphthalate and bis-2-methoxyethyl phthalate. U.S. Pat. No. 4,915,893 describes spinning polyesters such as polylactide with an additive such as a polyurethane, glycolide, lactide, camphor, benzoic acid-2-hydroxyacetate, hexamethylbenzene, 1,2-cyclohexandione and other low molecular weight organic compounds which are preferably soluble in trichlormethane and/or dichlormethane and ethanol and having a melting temperature in the range of 40.degree. to 180.degree. C.

DEPR:
Fibers in accordance with the present invention are prepared by spinning or extruding a composition containing a bioabsorbable polymer and plasticizer.

DEPR:
The bioabsorbable polymer can be prepared from any of the monomers known to form biocompatible, bioabsorbable polymers, such as, for example, glycolide, glycolic acid, lactide, lactic acid, p-dioxanone, epsilon-caprolactone, alkylene carbonates and alkylene oxides. Polymers derived from glycolide, lactide, p-dioxanone or combinations thereof are preferred.

09173640

WEST

Help Logout Interrupt

Main Menu | Search Form | Posting Counts | Show S Numbers | Edit S Numbers | Preferences | Cases

Search Results -

Terms	Documents
L51 and (pharmaceuticals or drugs)	74

Database: US Patents Full-Text Database
US Pre-Grant Publication Full-Text Database
JPO Abstracts Database
EPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search: 6130200.pn. and mixtures

Refine Search

Recall Text Clear

Search History

DATE: Friday, December 06, 2002 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
	DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=OR		
L52	L51 and (pharmaceuticals or drugs)	74	L52
L51	L50 and (two adj2 more adj1 polymers)	601	L51
L50	l47 and (polyesters or polylactides or polycaprolactones or polyglycosides or polyanhydrides or polyamides)	17100	L50
L49	L48 and (drugs or pharmaceutical)	24	L49
L48	L47 and ((amorphous adj1 polymer) same (crystall$ adj1 polymer))	225	L48
L47	polymer near (mixtures or combinations)	38207	L47
L46	l42 and (drug or pharmaceutical)	41	L46
L45	l42 and (drugor pharmaceutical)	23	L45
L44	l42 and (active or pharmaceutical)	120	L44
L43	l42 (active or pharmaceutical)	1247071	L43
L42	((amorphous adj1 polymer) same (crystall$ adj1 polymer)) and l41	355	L42
L41	(polymer near (blends or mixtures or combinations))	55247	L41

L40	l1 and l28	11	L40
L39	\L38	260	L39
L38	L28 and (polycaprolactone or (polyamino near acids) or polylactic or PCL or PLA or PLGLY)	73	L38
DB=USPT; PLUR=YES; OP=OR			
L37	5620700.pn.	1	L37
L36	5620700.pn.	1	L36
L35	5744153.pn.	1	L35
DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=OR			
L34	((ethyl adj1 benzoate) near solvents) and (polyglycolides or polylactides or polyester or polyanhydrides polycaprolactones)	7	L34
L33	(ethyl adj1 benzoate) same (polyglycolides or polylactides or polyester or polyanhydrides polycaprolactones)	52	L33
L32	L30 and (drug or pharmaceutical)	26	L32
L31	L30 and (drug or phramaceutical)	18	L31
L30	L28 and (polycaprolactone or polylactide or polyvinylpyrrolidone)	99	L30
L29	L28 and ((polylactide same polyglycolic or polyanhydrides) same (PVP or PGLA or polyvinylpyrrolidone))	0	L29
L28	(polymer near blend near compositions)	997	L28
L27	L21 and L1	3	L27
DB=USPT; PLUR=YES; OP=OR			
L26	5487897.pn.	1	L26
L25	5632727.pn.	1	L25
L24	5660849.pn.	1	L24
L23	4976962.pn.	1	L23
DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=OR			
L22	6193991.pn.	2	L22
L21	L18 and (polymer near (blends or mixtures or combinations))	40	L21
L20	L19 L18 and (polymer near (blends or mixtures or combinations))	41	L20
L19	L18 and (ethyl near benzoate)	1	L19
L18	L17 and (solvent)	122	L18
L17	L16 and composition	164	L17
L16	L14 same (pharmaceutical or drugs or active)	189	L16
L15	L14 and (pharmaceutical or drugs or active)	1077	L15
L14	(polycaprolactone or polyester) same (polylactide)	1323	L14
L13	L12 and (drug or pharmaceutical)	43	L13
L12	L7 and (polymer near blends)	169	L12
L11	L10 and (drug or pharmaceutical)	26	L11
L10	L9 and amorphous	44	L10
L9	L7 and (crystall$ near polymer)	54	L9
L8	L7 and (crystall$)	519	L8

L7	(polyvinylpyrrolidone or PVP) same (polylactide or polycaprolactone or polyester or (poly near glycolic near acid))	1967	L7
L6	L4 and (inject$ or injectable)	75	L6
L5	L4 and (polyesteer or (poly adj1 caprolactone))	10	L5
L4	L3 and (layered or layers)	129	L4
L3	L2 and solvent	211	L3
L2	L1 and (active or pharmaceutical or drug)	269	L2
L1	(amorphous adj1 polymer) same (crystall$ adj1 polymer)	1026	L1

END OF SEARCH HISTORY

WEST

End of Result Set

☐ Generate Collection Print

L11: Entry 2 of 2 File: USPT Sep 2, 2003

DOCUMENT-IDENTIFIER: US 6613363 B1
TITLE: Biodegradable chewing gum bases including plasticized poly(D,L-lactic acid) and copolymers thereof

Detailed Description Text (7):
Consequently, the poly(lactic acid) polymer has two corresponding enantiomeric forms also: PDLA; and PLLA. The racemic mixture of the two is poly(D,L-lactic acid). Both PDLA and PLLA are highly crystalline. The copolymers poly(D,L-lactic acid) are much less crystalline or even amorphous depending on the monomer ratio. Literature has shown that PLLA has 38% crystallinity, while poly(D,L-lactic acid) with 5 mole percent D-lactic acid has only 18% crystallinity. At about a 1:1 ratio, poly(D,L-lactic acid) is amorphous.

WO 00/19837

WEST

Generate Collection Print

L2: Entry 33 of 42 File: USPT Mar 29, 1983

DOCUMENT-IDENTIFIER: US 4378228 A
TITLE: Process for preparation of monodispersed crystalline particles from amorphous polymers

Abstract Text (1):
Process for preparation of monodispersed crystalline particles from amorphous crystallizable polymers. In this process, an amorphous polymer of an inorganic glass, such as selenium, or of organic polymer, such as a polyester, is initially contacted with a crystal inducing fluid under certain specified conditions. Concurrent with such contact the crystallizable polymer is subjected to physical and/or ultrasonic forces. This combination of steps results in the substantially complete conversion of the amorphous polymer to monodispersed crystalline particles. In the case of crystallization of amorphous selenium, this process is directive for preparation of the corresponding triclinic crystalline form of this material.

Brief Summary Text (16):
The above and related objects are achieved by providing a process wherein a sample comprising an amorphous crystallizable polymer is contacted with a crystal inducing fluid, thereby causing the formation of crystalline particles on the surface of the polymer exposed to said solvent. Concurrent with or subsequent to the formation of the crystalline particles, said particles are subjected to mechanical and/or ultrasonic forces thereby resulting in (a) their removal from the surface of the amorphous polymer; (b) their fragmentation to monodispersed particles, and; (c) the re-exposure of the amorphous polymer sample to the crystal inducing fluid. The rate of attrition of the crystals from the amorphous polymer must be approximately comparable to or greater than the rate of crystalline particle formation on said surface. This process can proceed until substantially all of the amorphous polymer has been crystallized.

NCBI PubMed National Library of Medicine NLM

Entrez PubMed Nucleotide Protein Genome Structure PMC Journals Books

Search PubMed for injectable + PGLA Go Clear

Limits Preview/Index History Clipboard Details

Display Summary Show: 20 Sort Send to Text

Items 1-2 of 2 One page.

Entrez PubMed

1: Hutmacher DW, Goh JC, Teoh SH. Related Articles, Links

An introduction to biodegradable materials for tissue engineering applications.
Ann Acad Med Singapore. 2001 Mar;30(2):183-91. Review.
PMID: 11379417 [PubMed - indexed for MEDLINE]

2: DesNoyer JR, McHugh AJ. Related Articles, Links

Role of crystallization in the phase inversion dynamics and protein release kinetics of injectable drug delivery systems.
J Control Release. 2001 Feb 23;70(3):285-94.
PMID: 11182199 [PubMed - indexed for MEDLINE]

PubMed Services

Related Resources

WEST

Generate Collection | Print

L5: Entry 40 of 54 File: USPT Dec 26, 2000

DOCUMENT-IDENTIFIER: US 6165486 A
TITLE: Biocompatible compositions and methods of using same

Detailed Description Text (31):
In vivo of the present invention confirms the applicability of the present invention as a tissue substitute, the contemplated use of the present invention. Scaffolds constructed of the composition of the present invention support the growth of bone both in vivo and in vitro. The in vivo data supports the use of a blend of the present invention comprising poly(lactic-co-glycolic) acid, polycaprolactone and particulate hydroxyapatite. The degradation time of PCL is typically slower than that of poly(lactic-co-glycolic) acid. The blends of the two polymers have advantageous controlled properties, such as mechanical strength and degradation time. Polycaprolactone is utilized because it is crystalline and demonstrates high solubility, blend miscibility (when in small concentrations), nontoxicity, and biodegradability. PLGA is chosen for its amorphous nature, biodegradability, and nontoxicity.

WEST

Generate Collection | Print

L8: Entry 15 of 83 File: PGPB Dec 5, 2002

DOCUMENT-IDENTIFIER: US 20020182241 A1
TITLE: Tissue engineering of three-dimensional vascularized using microfabricated polymer assembly technology

Detail Description Paragraph (27):
[0061] Particularly useful for this invention are polyesters in the polylactide(PLA)/polyglycolide(PLG) family. These polymers have received a great deal of attention in the drug delivery and tissue regeneration areas. They have been in use for over 20 years in surgical sutures, are Food and Drug Administration (FDA)-approved and have a long and favorable clinical record. A wide range of physical properties and degradation times can be achieved by varying the monomer ratios in lactide/glycolide copolymers. Poly-L-lactic acid (PLLA) and poly-glycolic acid (PGA) exhibit a high degree of crystallinity and degrade relatively slowly, while copolymers of PLLA and PGA, PLGAs, are amorphous and rapidly degraded.